NETiVE
TOOLS

USER MANUAL

NOTDR-550Pro

Multi-function OTDR



Built by technicians

English · **Version 1.0 · November 2026**

Safety

Read this manual before you use the device for the first time. Keep it with the device.



WARNING In the OTDR, loss test, laser source and VFL functions, the device emits visible or invisible laser light. Never look into the optical ports or the end of a fiber. It can cause permanent eye damage.

- When an optical port is not in use, close its cap. Dust in the port affects the results.
- Do not open or repair the device yourself.
- If the device swells, deforms, leaks, or the battery life drops sharply, stop using it at once and contact us.

CAUTION Do not use the device where electrical equipment is not allowed, e.g. in hospitals or at petrol stations. Follow local rules.

- Use only the accessories and the power adapter supplied.
- Keep the connectors clean. Dirty connectors give wrong results.
- Remove the insulating paper before first use.
- If the device stops responding, disconnect all cables and hold the power button until it turns off. Then turn it on again.
- Do not leave the device charging unattended. If the battery gets very hot, turn the device off and unplug the adapter at once.

What it does

The NOTDR-550Pro is an OTDR with a 7″ touch screen and many instruments in one device:

- **OTDR** at 1310, 1550 and 1625 nm: fiber length, losses, splices, connectors and fault location.
- **Laser source**, **optical power meter**, **VFL** (red light) and **loss test**.
- **Copper cables**: length, RJ45 test (TDR), continuity and wire map, cable tracing, PoE.
- **Network**: PING, IP address scan, LLDP/CDP, switch port flashing, FTP.
- **Remote control** from your phone.

What is in the box



NOTDR-550Pro and accessories

- NOTDR-550Pro OTDR
- Carrying case
- DC 12 V / 2 A power adapter
- Digital cable tracer
- RJ45-to-BNC adapter with alligator clips
- Quick start guide and calibration certificate
- This manual and a warranty card

If anything is missing, contact us before you use the device.

The device at a glance

Front



#	Part
1	Charging indicator
2	Standby indicator
3	External power indicator
4	Menu key
5	Confirm key
6	Back / close · Cancels while you change settings
7	Zoom the trace (OTDR)
8	LED torch

The SD (TF) card slot is under the rubber cover on the side.

Top and bottom



#	Part
1	USB, 5 V / 2 A power output
2	LED torch
3	1000M LAN port
4	PSE input / 1000M LAN port
5	OTDR / laser source (LS) ports
6	Optical power meter (OPM)
7	VFL output (red light)
8	Power button
9	DC 12 V / 2 A charging
10	RESET
11	UTP/SCAN cable port (wire map and tracing)

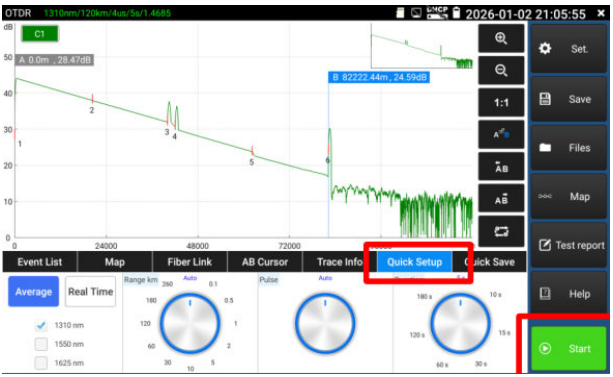
First use

1. Remove the insulating paper.
2. Charge the device with the DC 12 V / 2 A adapter at the charging port (bottom). A full charge takes about 2.5 hours and gives about 11 hours of use.

3. Turn the device on with the power button on top.
4. You operate the device on the touch screen. Every function opens from the home screen.
5. In **Settings**, set the language, date and time.

OTDR

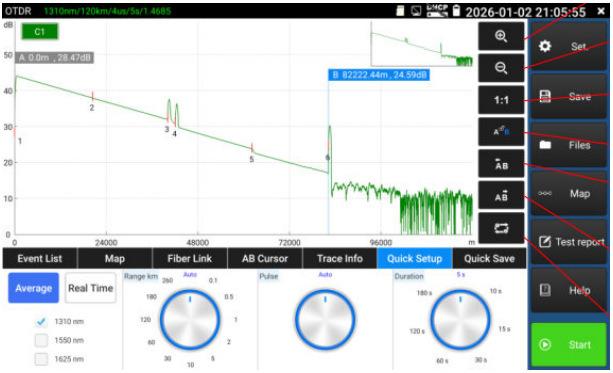
Measuring



1. Clean the connector and connect the fiber to the OTDR port on top. The ports are FC-UPC.
2. Tap **Start**. With the defaults, range and pulse width are automatic and the test takes 5 seconds.
3. To change wavelength, pulse width and duration quickly, open **Quick Setup**, then tap **Start**.

> **WARNING** The OTDR emits visible or invisible light. Do not look into the port or the end of the fiber.

The trace

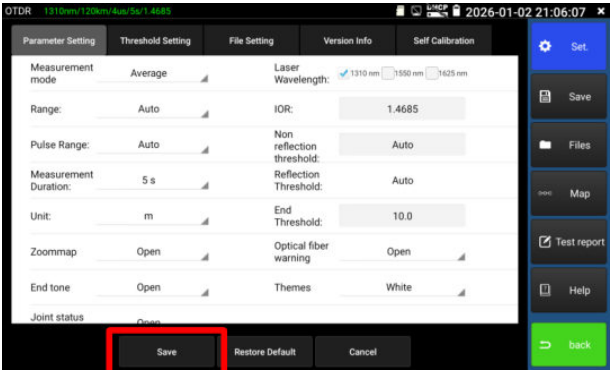


The buttons next to the trace, from top to bottom:

- **Horizontal zoom in** and **horizontal zoom out**.
- **1:1**: restores the trace to its original scale.
- **A/B**: selects which marker (A or B) you move.
- **Left / right arrow**: moves the selected marker.
- **Switch trace**: when several traces are open, moves from one to the next.

Double-tap the trace to show it full screen. Zoom in and out with two fingers.

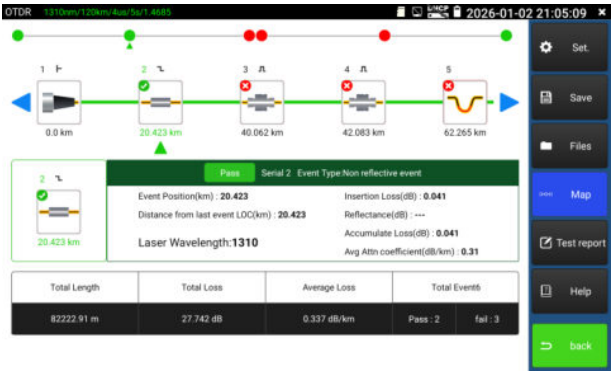
Test settings



Setting	What it does
Wavelength	1310, 1550 or 1625 nm.
Range	Automatic or 0.1 to 260 km. If you do not know the length, use automatic. If you do, choose a range of at least 1.5 times the length.
Duration	5 to 180 s. For a cleaner trace, use a longer duration.
Pulse width	Automatic or 3 to 20,000 ns. For long fibers, use a wider pulse.
Test mode	Average or Real-time. In Real-time the duration does not apply.
Refractive index	Default 1.4685. The length is calculated from it: do not change it without reason.
Unit	m, km, ft or kft.
Non-reflective threshold	0.01 to 2.99 dB or automatic. A value of 0.00 means automatic.
End threshold	10.0 to 30.0 dB. Events below the threshold are not shown.
Live fiber warning	ON/OFF. With ON, the device warns you if the fiber already carries a signal.
Connector check	If the connection is wrong or the port is dusty, a cleaning message appears.
Restore defaults	All settings return to their default values.

> **NOTE** When you are done, tap **Save** to keep the settings.

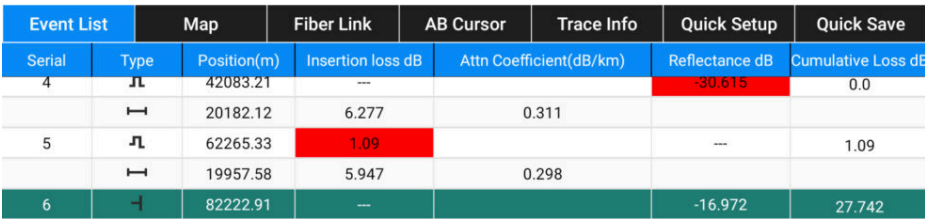
The event map (Map)



The map shows the fiber length, the events and the losses in a simple view.

Event	Meaning
Initial	The first event, usually the OTDR connector.
Reflective	Usually a connector. Shows as a peak on the trace.
Non-reflective	Usually a splice or a bend. Shows as a drop on the trace.
End	The end of the fiber, usually with a reflection.
Termination	End or break of the fiber. A termination without a reflection peak is usually a break.
Macro-bend	A bend in the fiber with relatively high loss.
Ghost	A false reflection. Ignore it.

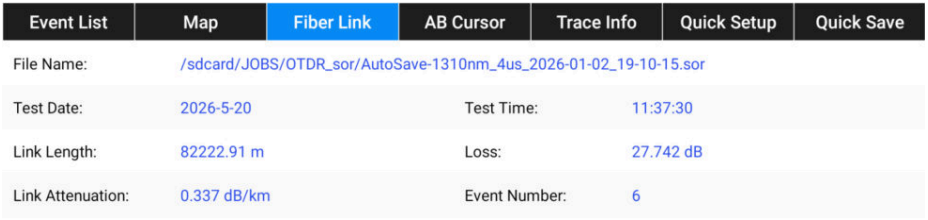
Event list



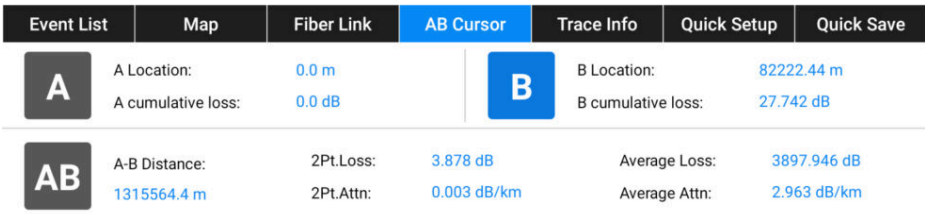
The list shows for each event: number, type, location (distance from the start), insertion loss, attenuation since the previous event, reflectance and cumulative loss from the start. Tap an event and the marker jumps to its position on the trace.

> **NOTE** Reflectance is a negative number. The lower it is (e.g. −55 rather than −35 dB), the better the connector. You set a threshold from 0 to 70: if the value is worse, the event shows "not passed". Reflectance is not judged at the initial and end events.

Fiber Link and A/B markers

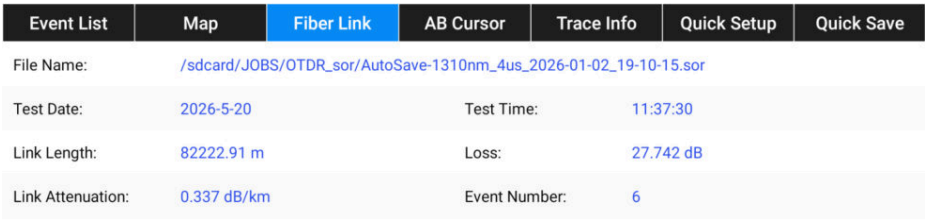


Fiber Link: file name, duration, link length, total loss, attenuation per km and number of events.



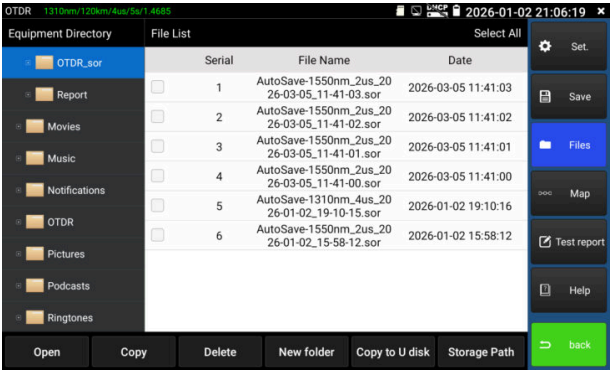
AB Cursor: use markers A and B to measure one event or a section of fiber. You see the position and cumulative loss of each marker, the A–B distance, the A–B loss and the A–B attenuation (also with the LSA method).

Trace info and quick save



Trace Info: enter project, technician, fiber type, customer, fiber number, contact and end location. They go into the report automatically. **Quick Save**: saves with an automatic file name.

Files and reports



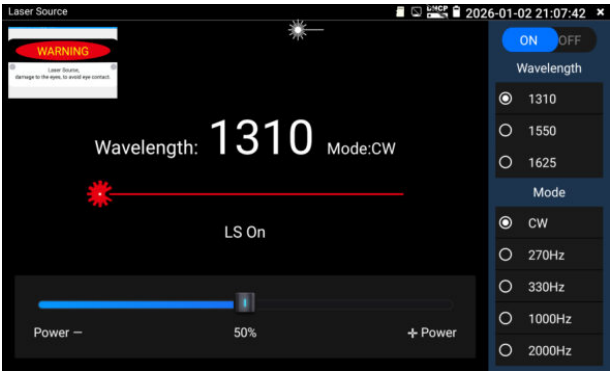
- **Save**: traces are saved as SOR files.
- **Files**: open, rename, copy and delete.
- **Report**: creates a PDF report.
- **Help**: detailed instructions on the device.

Comparing traces



Open up to 20 traces together, each in its own colour. The buttons apply to all of them. Switch traces with "C1", "C2" etc. on the trace, with the switch-trace button or with the arrow keys. The information shown is for the selected trace.

Laser source (LS)

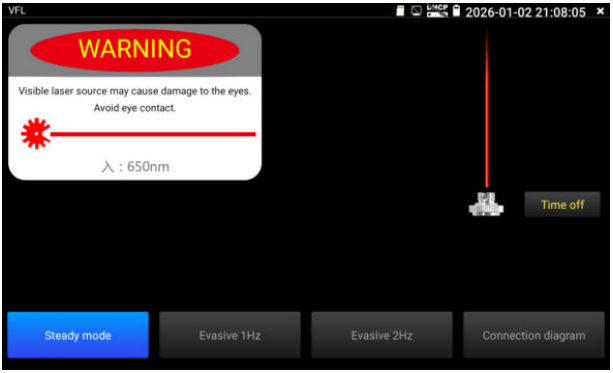


A stable light source for loss measurements and fiber checks.

- **ON/OFF**: turns the source on and off.
- **Wavelength**: 1310, 1550 or 1625 nm, as on the OTDR.
- **Mode**: continuous (CW) or modulated at 270 Hz, 330 Hz, 1000 Hz, 2000 Hz.
- **Power**: set with the slider from 1 % to 100 %.

> **WARNING** Do not look into the laser source port.

Red light (VFL)



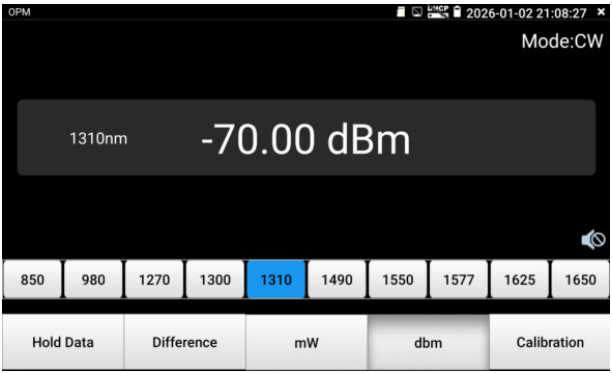
To check a fiber and find faults by eye.

- **Steady**: continuous red light.

- **Flashing**: 1 Hz or 2 Hz.
- **Timer**: the light turns off by itself after the time you choose.

WARNING Do not look into the VFL output. The laser damages the eyes.

Optical power meter (OPM)

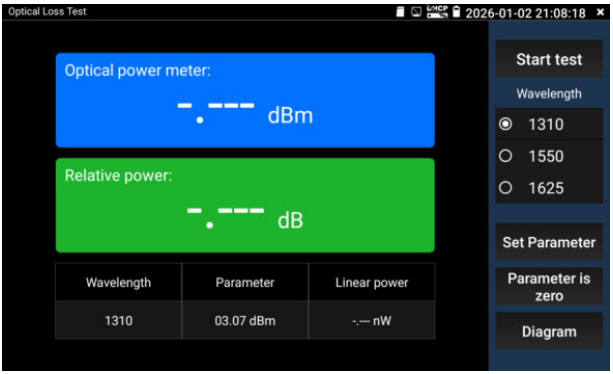


Connect the fiber to the OPM port. The display shows the power as a linear or logarithmic value, for power tests and link loss measurement.

- Calibrated at 10 wavelengths: 850, 980, 1270, 1300, 1310, 1490, 1550, 1577, 1625 and 1650 nm.
- **Hold Data**: holds the value on the display.
- **Difference Value**: saves the current value and shows the difference from the new one, in nW or dBm.
- **Calibration**: if the difference from a known source is large, calibrate again.

CAUTION Keep the OPM port clean. Clean the sensor with special cleaning alcohol (e.g. NCT-600) and keep the cap clean.

Loss test



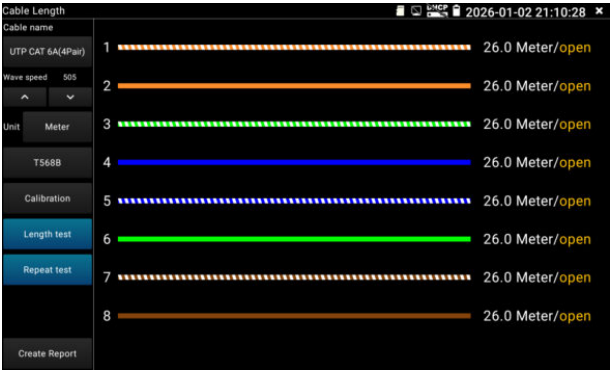
Measures the insertion loss of passive components (e.g. connectors, splitters, patch cords).

1. **Calibration**: connect a reference patch cord from the OTDR/LS port to the OPM port. Tap **Start**. When the power is stable, tap **Set Parameter**.
2. Connect the component you want to measure between the two ports and tap **Start**.
3. "Relative power" is the insertion loss of the component.

> **NOTE** Calibrate before each series of measurements for a more accurate result.

Copper cables

Cable length

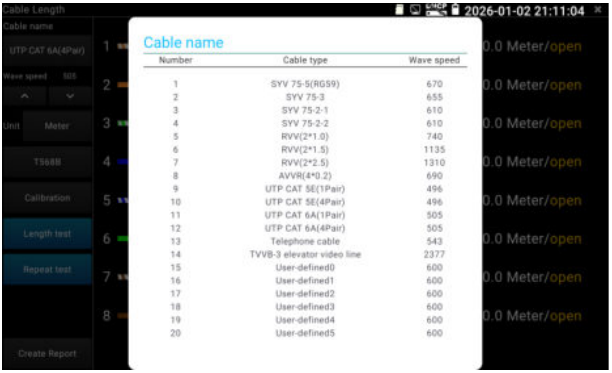


Measures the length of an open cable (nothing connected at the far end).

1. Connect the network cable to the UTP port. For a BNC cable, fit the RJ45-to-BNC adapter into the UTP port and clip the alligator clips onto the copper of the cable (strip it first).
2. Choose the cable type: BNC, network, RVV (control cable), telephone, TVVB etc.
3. **Length Test**: one measurement. **Continuously Test**: continuous measurement. With a short circuit the length is not shown.

> **CAUTION** The cable must not be connected to any device. Otherwise the result is wrong.

Length calibration



Cables of the same type from different makers have different impedance, and so give different results. Calibration corrects this.

1. In **Cable Name**, select **User-defined**.
2. Change the wave velocity (on the left) and measure. Repeat until the correct length appears.
3. Tap **Calibration**, enter the wave velocity you found and tap **Calibration** again to save.

> **NOTE** For calibration, use a cable longer than 20 m whose length you know.

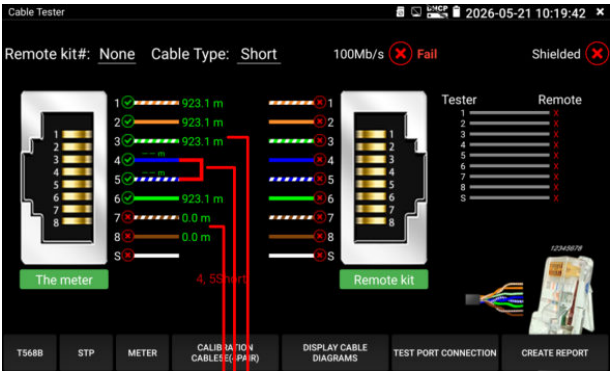
RJ45 cable test (TDR)



Checks each pair: status, length, attenuation, reflectance, impedance and skew. Connect the cable to the LAN port on top. Maximum distance 200 m.

Indication	Meaning
open	The far end is not connected to anything.
short	Short circuit between pairs.
online	The far end is connected to an active device (camera, switch etc.). The length is not accurate.
Green / yellow / red	Good cable / poor quality / cable with water. Attenuation is shown on cables over 10 m.

Cable test (continuity, wire map, RJ45)

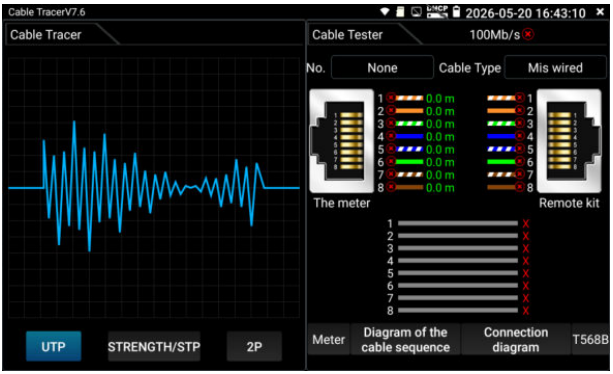


Connect one end of the cable to the UTP/SCAN port.

- **Far end free**: length per pair and RJ45 crimp check.
- **Far end on the tracer (remote)**: wire map and continuity, with the remote's ID (default 255).

The display shows whether the cable is fine (with its length), whether the RJ45 has a problem or there is a break within the first 1 m, or whether there is a short circuit.

Cable tracing (tracer)



Connect the network or BNC cable to the UTP/SCAN port at the bottom and search for it with the tracer.

- **Normal**: for normal network cables and other cables.
- **STRENGTH / STP**: for shielded cable.
- **2P**: for 2-core cable.

When you find the cable, connect its other end to the tracer's UTP port: you see the wire map and continuity at once. The tracer's 1–8 indicators flash in wire order, and the DIRECT / CROSS / OTHER indicators show the cable type.

PoE test

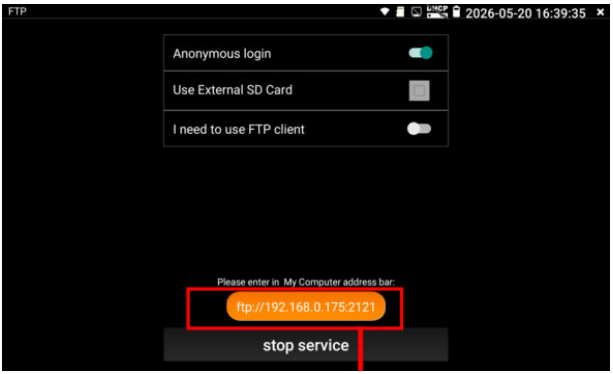


Connect the PoE switch or PoE injector to the **PSE IN** port. To measure the power delivered to a device (e.g. a PoE camera), connect the device to the **LAN/POE IN** port.

- **Protocol**: whether the supply is IEEE 802.3af/at/bt compliant or not.
- **Power pair**: 1236 or 4578, and the polarity.
- **Voltage**, **maximum input power** and **online power**.
- **Save**: saves a CSV table (time, protocol, pair, voltage, power). **Clear History**: deletes the history.
- **Normal / Special Mode**: Special is for some 802.3af/at devices that Normal does not recognise.

Network tools

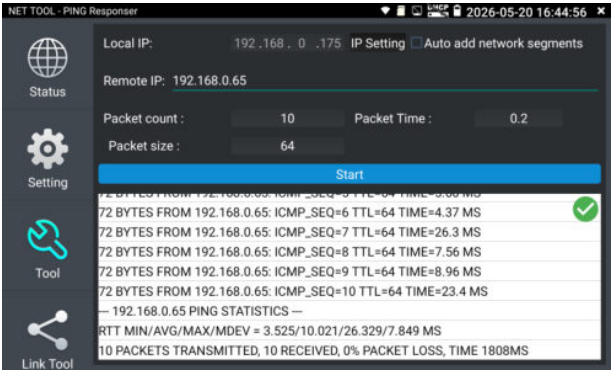
File transfer (FTP)



Copy files to and from a computer without an SD card.

1. Connect the device and the computer to the same local network (same subnet).
2. Start the FTP service.
3. On the computer, in the file manager, enter the address shown on the device (e.g. ftp://192.168.0.175:2121).

PING and IP scan



PING: checks whether a device communicates properly. Connect the cable to the LAN port on top, set local IP, remote IP, packet count, size and interval, and tap **Start**.

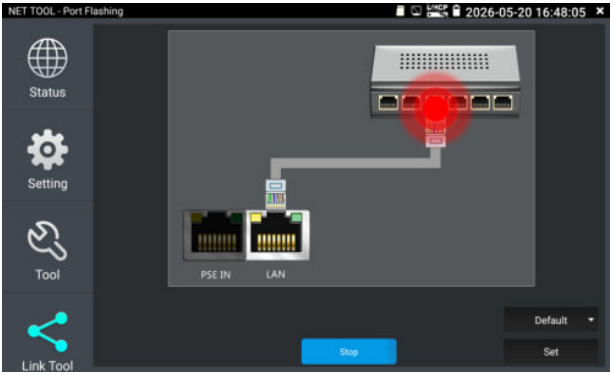


IP scan: quickly finds the IP address of a camera or other device connected to the tester, with MAC address, manufacturer and IP conflicts. The scan starts as soon as you open the function.

LLDP/CDP and port flashing

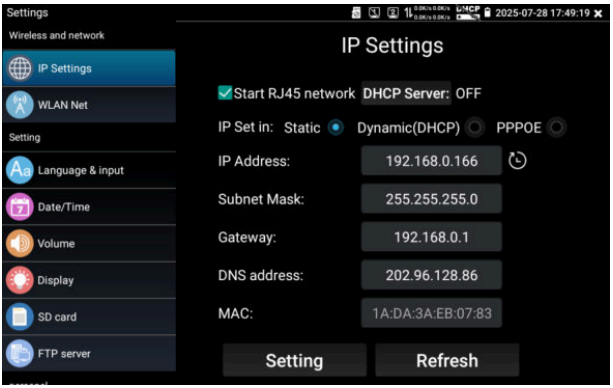


LLDP/CDP: shows the switch details: capabilities, management address, device name and port. The switch must support LLDP or CDP.



Port Flashing: tap **Start** and the switch port the tester is connected to flashes at a special rate. This way you find it quickly.

Settings



Setting	What it does
IP	IP address, mask and gateway.
WLAN	Turns WiFi on and off.
Language and input	Change language (English among others) and keyboard.
Date / time	Manual, or automatic with an internet connection.
Display	Brightness and time until the screen turns off.
Volume	Sound level.
Storage	SD card space, unmount and format. Default is internal storage; choose "external SD" for an external card.
Power off	Time after which the device turns itself off.
Factory reset	Restores factory settings. **All your data is lost.**

Remote control from your phone (TesterPlay)



See the tester's screen on your phone and control it from there.

1. Tap **Start**.
2. Scan the QR code with your phone.
3. Choose **local** or **remote** connection.
4. The OTDR screen appears on the phone. With **Remote projection** you can also control it.

- **Local connection**: tester and phone on the same local network, or the phone on the tester's WiFi hotspot.
- **Remote connection**: tester and phone both connected to the internet.

> **NOTE** Voice intercom works only on the local connection. Turn it on **before** you connect the app. If it does not work, reconnect the app.

Care

- Keep the caps on the optical ports when they are not in use.
- Clean the connectors before every connection.
- Carry the device in its case.

Specifications

OTDR

Wavelengths	1310 / 1550 / 1625 nm
Dynamic range	38 / 38 / 36 dB
Event dead zone	≤ 0.8 m
Attenuation dead zone	≤ 3 m
Distance range	0.1 · 0.5 · 1 · 2 · 5 · 10 · 25 · 60 · 120 · 180 · 260 km
Pulse width	3 · 5 · 10 · 20 · 30 · 50 · 80 · 160 · 300 · 500 · 800 · 1000 · 2000 · 4000 · 6000 · 10000 · 20000 ns
Distance uncertainty	±(1 m + 5 × 10^{-5} × distance + sampling interval)
Test duration	5 s – 3 min, real-time
Linearity	±0.03 dB/dB
Minimum distance resolution	0.016
Sampling points	up to 256 k
Loss threshold	0.03 dB
Loss resolution	0.001 dB
Live fiber test	The 1310/1550 nm port tests fibers carrying 1625/1650 nm · the 1625 nm port tests fibers carrying 1310/1490/1550/1577 nm
Several wavelengths at once	Yes
Trace comparison	up to 20
File formats	SOR, PDF, Excel
Storage	8 GB eMMC + TF card (not included)
Optical ports	FC-UPC / SC-UPC

Other functions

Laser source	FP-LD · adjustable power · CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz · stability ±0.2 dB / 15 min (after 15 minutes of warm-up)
Power meter	850 / 980 / 1270 / 1300 / 1310 / 1490 / 1550 / 1577 / 1625 / 1650 nm · –70 to +10 dBm
VFL	650 nm, 10 mW
RJ45 test (TDR)	Pair status, length, attenuation, quality, reflectance, impedance · up to 200 m
UTP cable test	Near, mid and far-end faults · cables with 2 or more cores · wire map and remote ID · shielded cable
PoE	IEEE 802.3af/at/bt · protocol, voltage, power pair
Network tools	IP, PING, LLDP, port flashing, PPPoE, FTP
LAN ports	Two RJ45 ports, 10/100/1000M
WiFi	2.4 GHz, up to 150 Mbps

General

Display	7″ IPS touch screen, 1280 × 800
Languages	English, Chinese, German, French, Italian, Spanish, Portuguese, Polish, Russian, Turkish, Serbian, Czech, Korean, Japanese
Power	DC 12 V / 2 A
Battery	Built-in lithium-ion, 7.4 V, 7800 mAh
Charging / operation	2.5 hours charging · about 11 hours operation
Auto standby	Off or 15 s – 30 min
Operating temperature	–10 to +50 °C
Operating humidity	30–90 %
Dimensions / weight	210 × 147 × 48 mm · 0.92 kg

Specifications are the manufacturer's and given for reference. Wavelengths and dynamic range from the device label. Dynamic range is measured with the widest pulse (260 km / 20,000 ns / 3 min). Test conditions: UPC connector, 25 ± 2 °C, 50 % humidity.

Warranty and service

2-year warranty · Service at our Lab in Thessaloniki

The warranty is valid for 2 years from the date of the purchase invoice. It covers faults caused by defects in materials or workmanship.

- We repair the device free of charge at our Lab in Thessaloniki.
- If the device cannot be repaired within the 2 years, we replace it free of charge.

The warranty does **not** cover damage caused by accidents, drops, liquids or use other than described in this manual, or a device that has been opened or repaired by others.

How to request a repair

1. Contact us before you send the device: netivetools.com/en/ypostirixi · info@netivetools.com · +30 2312 313333.
2. Tell us the model, the serial number (S/N), the invoice number and the problem you see.
3. We tell you how to send the device to our Lab.

Do not open the device yourself. Opening it voids the warranty.

> **NOTE** Register your device at netivetools.com/en/eggyisi. This helps us find its history faster.

Disposal and recycling



Do not throw the device or its battery away with household waste. Take them separately to a collection point for electrical and electronic equipment and batteries, or return them to us. Separate collection protects the environment and helps recycling.

NETIVE TOOLS

Built by technicians

NETIVE Tools
Delfon 175, 542 48 Thessaloniki, Greece
+30 2312 313333
info@netivetools.com
netivetools.com

Scan for the product page, the latest version of this manual and support.
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The information in this manual may change without notice. The latest version is on the product page.